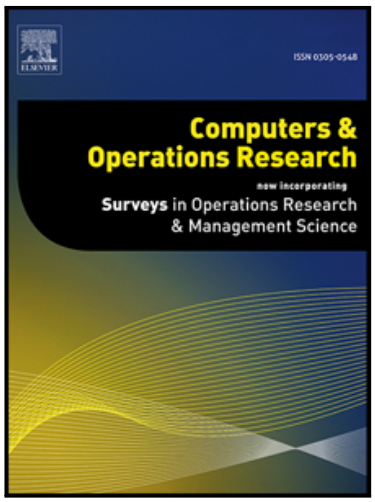

Managing congestion and emissions in transportation networks with dynamic carbon credit charge scheme

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Highlights:

- This paper put forwards a dynamic carbon credit charge scheme to manage network mobility and emissions.
- A bi-level model is formulated and solved with pattern search algorithm embedded with projection method.
- Minimum travel time credit design doesn't always generate effective behavioral changes
- Minimum travel time flow pattern doesn't always generate minimum carbon emissions and an obvious tradeoff between travel time and emission can be observed, especially in networks with complex O-D pairs and paths